

REMARKS

Reconsideration of the above-identified application in view of the amendment above and the remarks below is respectfully requested.

No claims have been canceled or added in this paper. Claims 1 and 31 have been amended in this paper. Therefore, claims 1-4 and 24-35 are pending and under active consideration.

The drawings stand objected to under 37 CFR 1.83(a) for the following reason:

The drawings must show every feature of the invention specified in the claims. Therefore, the “electronic image evaluation apparatus” in claim 1 and the “vertical height of the lateral lamps arranged on two sides of the container located in the analysis position is of greater dimension than the vertical height of the middle lamp” in claim 27 must be shown or the feature(s) canceled from the claim(s).

Please note that the drawings and specification do not show the “electronic image evaluation apparatus” however, they do disclose an image evaluation computer or image processing computer, see Fig. 1 and see first full paragraph of page 6. The Office recommends Applicant change all claim recitations of the “electronic image evaluation apparatus” to –image evaluation computer— or –image processing computer—since these limitations are associated with an element in the drawings (i.e., 13). No new matter should be entered.

Insofar as the subject objection is predicated on the recitation in claim 1 of “electronic image evaluation apparatus,” Applicant notes that, as suggested by the Patent Office, Applicant has replaced this language with “image evaluation computer.” Therefore, this ground of the objection has been obviated.

Insofar as the subject objection is predicated on the recitation in claim 27 of “vertical height of the lateral lamps arranged on two sides of the container located in the analysis position is of greater dimension than the vertical height of the middle lamp,” Applicant respectfully traverses. Lateral lamps 46 and 47 and middle lamp 48 are shown in a top view in Fig. 5 and in a front view in

Fig. 6. It can clearly be seen in Fig. 6 that middle lamp 48 is positioned lower than lateral lamps 46 and 47. Therefore, the language in question of claim 27 is clearly supported by the drawings.

Accordingly, for at least the above reasons, the subject objection should be withdrawn.

Claim 1 stands objected to for the following alleged informality:

third line from bottom of claim recites “the illuminating device further comprising a further,...”. The second recitation of “further” should be removed for clarity.

Without acquiescing in the propriety of the objection, Applicant has made the change suggested by the Patent Office. Accordingly, the objection has been obviated and should be withdrawn.

Claims 31-33 stand rejected under 35 U.S.C. 112, second paragraph, “as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” In support of the rejection, the Patent Office states the following:

The antireflection plate in these claims lacks antecedent basis. Also it is not clear where the “antireflection plate” is located in the system.

Without acquiescing in the propriety of the subject rejection, Applicant has obviated the rejection by amending claim 31 so that the definite article “the” is replaced with the indefinite article “an” before the recitation of “antireflection plate.” In response to the Patent Office’s query about where the antireflection plate is located in the system, Applicant responds that the antireflection plate 36 may be located behind the container 20 which contains body fluid to be analyzed and can be moved backwards and forwards in the direction of the optical axis 54 of the image recording device 30. Notwithstanding the above, Applicant respectfully submits that claim 31, as presently drafted, sufficiently associates the antireflection plate with the remainder of the apparatus.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Claims 1-4, 24-25, 27, 29-30 and 34-35 stand rejected under 35 U.S.C. 102(b) “as being anticipated by Kaplan et al. (US Patent No. 5,835,620), hereinafter “Kaplan.” In support of the rejection, the Patent Office states the following:

Kaplan teaches an arrangement for analyzing body fluids comprising an image recording device (camera 18), an electronic image evaluation apparatus (processing system 26), a container (reads on slide that holds the sample 78 between the slide body and the cover slip 35 as seen in Fig. 5), and an illuminating device 20, 22, 24.

The image recording device 18 is connected to an electronic image evaluation apparatus (see Fig. 1), wherein the body fluid is provided in the container (between slide body and coverslip). The image recording device produces at least one image of the body fluid in the container and being aligned with and focused on the container which is in a stationary analysis position on stage 14. See Fig. 2 and.

The illuminating device is arranged above the container and serves to illuminate the container via light banks 20 and light diffuser 24. The illuminating device also comprises on each of two sides of the container located in the stationary analysis position a lateral lamp (20), see for example col. 6, lines 1-7. The lateral lamps are arranged such that the mid points of the two lateral lamps and the mid point of the container lie on a straight line (A), see Fig. 4. The illuminating device further comprising a middle lamp 22, 24 being provided and arranged in such a way that the mid points of this middle lamp and of the container likewise lie on a vertical straight line (B) which is perpendicular to the straight line (A), see col. 7, line 19 – col. 8, line 9.

As to claims 1 and 3, it is expected that the Kaplan system 10 is contained within some housing (i.e., chamber) with few or no optical reflections so as to allow the system to map the areas of a slide. This mapping process of Kaplan includes the steps of selectively illuminating the slide from a first light source oriented generally obliquely to the surface of the slide, obtaining a first image of the slide illuminated by the first light source, selectively illuminating the slide from a second light source providing generally scattered light, obtaining an image of said second image illuminated by the second light source, and generating a map of areas of

significance based on the first and second images. Any light incident on the slide from outside the chamber during the process of obtaining an edge image by the side lamps 20 would reduce the light captured by the camera since the system uses the brightness of the reflected light to determine the coverslip edges (see col. 4, line 66 – col. 5, line 13 and col. 6, line 56 – col. 7, line 18).

As to claim 2, Kaplan teaches the image recording device is a color image camera or a spectral camera, see col. 6, lines 8 et seq.

As to claim 4, Kaplan shows that the image recording device 18 is aligned with and focused on the container at an acute angle relative to the vertical axis (i.e., less than 90 degrees), see Fig. 5 for example.

As to claim 24, Kaplan teaches the optical axis of the image recording device 18 runs in a vertical plane that is perpendicular the line (A), the line (B) lying in this vertical plane (see Fig. 5).

With respect to claim 25, the lamps 20 of Kaplan have the same horizontal spacing from the container 16, see Figs. 1 and 3.

As to claim 27, the vertical height of the lateral lamps 20 of Kaplan is of greater dimension than the vertical height of the middle lamp 22, see Fig. 1.

Regarding claims 29-30, Kaplan teaches a scanner (i.e., bar code reader 32) which is aligned with the container in the analysis position.

As to claims 34-35, Russell also teaches a lifting rotary gripper (robot 28) for moving a container from its transportation position (30) to its analysis position on stage 14.

Applicant respectfully traverses the subject rejection as Kaplan neither anticipates nor renders obvious the claimed invention.

Kaplan discloses a slide mapping system for providing information regarding the location of specimen material 78/80 on a slide 16 to an automated specimen classifier 12. In this context, two light sources 22/46 are located over a diffuser (which is not comparable to the middle lamp 48 of the

present invention) because it is a passive means which spreads, disperses or diverts the vertically oriented light beams of light sources 22/46 into a diffuse light scatter. In addition, Kaplan discloses four separate light sources placed adjacent to each side of the squadratic slide 16. The slide mapping system of Kaplan, with its complex arrangement of light sources, does not give any hint to a person of ordinary skill in the art of the claimed invention, which includes a simple but effective arrangement of three lamps 46, 47 and 48 for illuminating a container containing a body fluid. With regard to a correct and reliable function of the invention, it is important that this container is located in a chamber with few or no reflections. A diffuse or scattered light environment like is caused by diffuser 24 of Kaplan would make obtaining an exact picture of the body fluid impossible. Therefore, the arrangement of light sources in Kaplan is just an obstacle to the present invention. The Patent Office's statement that light sources 20 and 22 of Kaplan are located on lines A and B clearly runs counter to the sense of this language as used in the present claims.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Claims 1-4, 24-25, 27 and 34-35 stand rejected under 35 U.S.C. 102(b) "as being anticipated by Shimizu et al. (US Patent No. 5,719,679), hereinafter "Shimizu." In support of the rejection, the Patent Office states the following:

Shimizu teaches an arrangement for analyzing materials comprising an image recording device (camera 33), an electronic image evaluation apparatus (computer 82), a container (VL), a chamber having no reflections from exterior light sources (see chamber in Fig. 3), and an illuminating device 32.

The image recording device 33 is connected to the electronic image evaluation apparatus, wherein the material is provided in the container. The image recording device produces at least one image of the material in the container and being aligned with and focused on the container which is in a stationary analysis position on stage 14. See Fig. 2.

Note that the material in the container is not considered as part of the claimed device structure and is therefore not given any patentable weight. For apparatus claims, if the prior art structure is capable of performing the intended use, then it meets the claim. Apparatus claims must be structurally distinguishable from the prior art in terms of structure, not function. See MPEP § 2114 & § 2173.05(g).

The illuminating device of Shimizu includes lamps 34, 35 arranged above the container. These lamps serve to illuminate the container and are located on two sides of the container in the stationary analysis position a lateral lamp 34, 35, see Fig. 6. The lateral lamps are arranged such that the mid points of the two lateral lamps and the mid point of the container lie on a straight line (A) as seen from above like Applicant's figure 2. The illuminating device further comprising a middle lamp 32 being provided and arranged in such a way that the mid points of this middle lamp and of the container likewise lie on a vertical straight line (B) which is perpendicular to the straight line (A), as shown in Fig. 6.

As to claim 2, Shimizu teaches the image recording device is a color image camera or a spectral camera, see col. 4, lines 59 et seq.

As to claim 5, Shimizu shows the image recording device 32 is aligned with and focused on the container at an acute angle relative to the vertical axis (i.e., less than 90 degrees), see Fig. 6 for example.

As to claim 24, Shimizu teaches the optical axis of the image recording device 32 runs in a vertical plane that is perpendicular the line (A), the line (B) lying in this vertical plane (see Fig. 6).

With respect to claim 25, the lamps 34, 35 of Shimizu have the same horizontal spacing from the container VL, see Figs. 1 and 3.

As to claim 27, the vertical height of the lateral lamps 20 of Shimizu is of greater dimension than the vertical height of the middle lamp, see Fig. 6.

As to claims 34-35, Shimizu also teaches a lifting rotary gripper 59 for moving a container from its transportation position (30) to its analysis position on stage 14.

Applicant respectfully traverses the rejection as Shimizu neither anticipates nor renders obvious the claimed invention.

Shimizu discloses a method for inspecting vials which are conveyed by a rotary table. Consequently, two steps of inspection are carried out. At first, the upper half portion of the vial is inspected, and in a separate second step its lower section is inspected. The light sources 34 and 35 of Shimizu are arranged under an acute angle and illuminate the upper section of the vial. A further light source 32 is located below the vial to enable the taking of an image of foreign substances by a camera when such substances, if present, can be picked up.

The arrangement of light sources in Shimizu is not suitable for solving the light requirements of the present invention, in which a homogeneous light, which is free of reflections, is necessary in order to get reliable results of the status of the blood fluid.

As noted above, the Patent Office states in the rejection that “a chamber having no reflections from exterior light sources (see chamber in Fig. 3).” Applicant respectfully submits that there is no disclosure anywhere in Shimizu of such a chamber. An important point to note is that the chamber 16 of the present invention is free of reflections with respect to the inside lamps 46, 47, 48 and not from outside lamps. Shimizu teaches away from the present invention and gives no hint as to how to arrive at the claimed invention.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Claims 26 and 28 stand rejected under 35 U.S.C. 103(a) “as being unpatentable over Kaplan (US Patent No. 5,835,620), or Shimizu et al. (US Patent No. 5,719,679).”

Applicant respectfully traverses the subject rejection. Claims 26 and 28 depend ultimately from claim 1. Claim 1 is patentable over each of Kaplan and Shimizu. Therefore, based at least on

their respective dependencies from claim 1, claims 26 and 28 are patentable over each of Kaplan and Shimizu.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Claims 29-30 stand rejected under 35 U.S.C. 103(a) “as being unpatentable over Shimizu (US Patent No. 5,719,679) in view of Watson et al. (WO 99/28724), hereinafter Watson.”

Applicant respectfully traverses the subject rejection. Claims 29-30 depend ultimately from claim 1. Claim 1 is patentable over Shimizu for at least the reasons given above. Watson fails to cure all of the deficiencies of Shimizu with respect to claim 1. Therefore, based at least on their respective dependencies from claim 1, claims 29-30 are patentable over Shimizu and Watson.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Claims 31-33 stand rejected under 35 U.S.C. 103(a) “as being unpatentable over Kaplan (US Patent No. 5,835,620) or Shimizu (US Patent No. 5,719,679) in view of Toshiaki (JP 09-133687).”

Applicant respectfully traverses the subject rejection. Claims 31-33 depend ultimately from claim 1. Claim 1 is patentable over Kaplan or Shimizu for at least the reasons given above. Toshiaki fails to cure all of the deficiencies of Kaplan or Shimizu with respect to claim 1. Therefore, based at least on their respective dependencies from claim 1, claims 31-33 are patentable over the applied combination of references.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

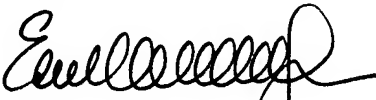
In conclusion, it is respectfully submitted that the present application is now in condition for allowance. Prompt and favorable action is earnestly solicited.

If there are any fees due in connection with the filing of this paper that are not accounted for, the Examiner is authorized to charge the fees to our Deposit Account No. 11-1755. If a fee is

required for an extension of time under 37 C.F.R. 1.136 that is not accounted for already, such an extension of time is requested and the fee should also be charged to our Deposit Account.

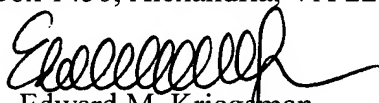
Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 10, 2009


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